Since this tree-ant is stingless it is harmless, and when alarmed it only tries to run away. It is unable to make a concerted attack on any of its enemies. When the nest is disturbed, the workers carry away the larvae in their mouth to some place of safety. It thus lives unobtrusively on the tree avoiding trouble from all quarters.

The communication between members of the colony appears to be by stroking the antennae only. The mutual licking and feeding by regurgitation goes on as is usual in most of the ants.

Inquilines and Parasites

No inquilines or parasites have so far been noted in the nests or the trails of the ants.

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Agricultural College
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18. NOTES ON A NEW PEST, *SPHENOPTERA DEDUCTA* KERR. (BUPRESTIDAE : COLEOPTERA) OF THE MAT-GRASS, *CYPERUS TEGETUM* (ROXB.), IN SOUTH INDIA[1]

The mat-grass or *Korai*, *Cyperus tegetum* (Roxb.) is grown on an extensive scale in some localities in the States of Madras and Bengal [Krishna Pillai, N. (1935): Cultivation of Korai (*Cyperus tegetum*) or mat-grass in N. Arcot District. *Madras Agric. J.* **23** : 371], and yields valuable grass with which mats are made. Although the mat is in common use in almost every house in India, very little is known about the mat-grass. In recent years it has been prized as a cash-yielding crop. In Madras State it is grown as a perennial crop in Wandi-Wash and Cheyyar taluks on a large scale. So far no insect has been

[1] Communicated by the Dean, Agricultural College & Research Institute, Coimbatore.

known to damage the plants; therefore, the outturn of, and the cash return from, the crop was well assured. This year, however, a jewel beetle, *Sphenoptera deducta* Kerr., appeared on a mass scale causing considerable injury to the crop. The characteristics of the beetle and the damage by it to the crop are described below.

S. deducta Kerr. does not appear to have been mentioned as a pest in the lists of Indian Insect Fauna so far. Insect collections in the Agricultural College and Research Institute, Coimbatore, include specimens of this species collected on nut-grass, *Cyperus rotundus,* in Malabar and Coimbatore. No further information is available on the occurrence or the distribution of the species. This is the first record of the insect on *C. tegetum* (Roxb.) in this region.

Morphological Features of the Insect

The beetle is about 1.5 cm. in length and dark shiny brown in colour on the dorsum of the body including the elytra, as well as on the sternum. It is covered with a dull white powder which gets wiped off on handling. It is ovoid-elongate in shape with a width of about 0.6 cm. in the middle. The head is truncated, as is typical for the genus, and is closely embedded vertically in the thorax. The thorax is rectangular with the elytra elliptical. The ventral portion is yellowish on the sides and brownish in the middle.

The antennae are short, serrate, black in colour, and composed of 11 segments. They are placed in the anterior portion of the head. There is a patch of metallic green colour on the frontal portion of the head. The legs are fairly long and black.

Habits of the Insect and Nature of Injury

The beetles usually rest on the culm of the plant just below the inflorescence with their heads pointing downwards. During the middle of the day when there is good sunshine and the day temperature is high, the beetles crawl up to the leaves and begin gnawing away portions from the sides. In several cases each leaf may have 2 or 3 beetles. Continuous feeding by the beetles causes complete defoliation of the plant and they begin to wilt from the tip. Cuttings of the crop are usually taken every six months. Damage by the insects, however, causes the plants to wither away in two or three months.

On disturbance the beetles feign death and fall down from the plants. They have a quick and strong power of flight and fly away long distances.

Seasons of Occurrence

The beetles occurred on a large scale in Thennangur (Wandi-Wash taluk) and Vadanangur (Cheyyar taluk) villages of North Arcot district from February to April 1960. The incidence began in a mild form but built up to a heavy density of population by March; in April the population declined.

The insect is not an endemic one and the outbreak reported here is of a sporadic nature. From reports received it is gathered that a similar incidence occurred eight years ago and caused enormous loss to the cultivators.

Trials with Insecticides

The incidence of the pest on a large scale was taken advantage of for testing insecticides for its control. Two fields of about one acre each were chosen and DDT 10% dust was applied in one and Parathion (Folidol) 0.025% (1 oz. in 12½ gallons of water) was sprayed in the other. The observations showed that the beetles flew away in large numbers from the DDT-dusted plots in a few hours. Birds like crows and sparrows preyed upon these beetles. In the field treated with Parathion the insects were not disturbed. However, in both the plots no beetles were found after three days. This suggests that both of the insecticides are able to control the pest.

Economic Status

C. tegetum is a perennial plant and gives cuttings of *Korai* culms every six months. The incidence of the Mat-grass Jewel Beetle a month or two after a cutting causes the culms to wilt and reduces the yield to about a fourth of its normal one. Hence, the insect has to be considered as a serious pest. However, it has so far been only a sporadic pest with heavy incidence occurring only occasionally.

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